Annual Author Index: 2002

АВЕ, М. 661 Addis, Т. R. 511 Анмад, М. О. 88 AU, M.-W. 129 Aycock, J. 620

BALAKIRSKY, V. B. 237, 243 BARDSLEY, A. 12 BARRINGER, H. 2 BELLAVISTA, P. 595

CAI, W. 540
CALDER, M. 55
CHAN, E. 129
CHAO, Y.-C. 72
CHEN, I.-R. 304
CHEN, X. J. 162
CHIN, S.-K. 46
CHONGYANG, X. 278
CONRAD, S. 249
COOK, J. J. 608
CORRADI, A. 595

Dal. Cin, M. 260 Deng, Y. 111

EDWARDS, D. 12 EL-KHATIB, H. T. 381

FARR, G. E. 285 FELLOWS, D. 2 FORMICA, A. 583 FURBER, S. 19

GARDINER, E. J. 631 GIBBONS, A. 213 GORDON, M. J. C. 27 GOUGH, G. 2 GU, B. 304

HANAOKA, G. 293 HASSELBRING, W. 249 HE, X. 111 HORSPOOL, R. N. 620 HUANG, C.-M. 72 HUSZERL, G. 260

IMAL H. 293

James, A. 249 Jensen, C. S. 481 Jie, W. 540 Juang, W.-S. 672 Jun, Y. 436

KAMAREDDINE, F. 187 KAMBUR, D. 249 KANDA, M. 661 KIM, D. 395 KOMMIDI, S. 147 KORSCH, J. F. 364 KOSMIDIS, K. 260 KOZATCHOK, I. 525 KUTSCHE, R.-D. 249

LAFOLLETTE, P. 364
LAM, K.-W. 410
LAM, K.-Y. 129
LEE, V. C. S. 410
LEE, Y.-H. 395
LEI, C.-L. 672
LIAW, H.-T. 672
LIN, C.-Y. 101
LIN, S.-S. 174
LITTLE, M. C. 645

MACKINNON, L. M. 381
MAHARAJ, S. 55
MAHMUD, S. M. 147
MAIZIK, I. 260
MÄKINEN, E. 653
MARWICK, D. H. 381
MICHAELSON, G. 436
MISSIKOFF, M. 583
MOLLER, F. G. 1
MUTHUKRISHNAN, M. 213

NISHIOKA, T. 293 NORRISH, M. 37

OLDER, S. 46 OOMMEN, B. J. 494

PAN, T.-T. 174 PAPADOPOULOS, C. 453 PARIMALA, N. 202 PATARICZA, A. 260 PIERRE, S. 525 Pu, I. 213

RAYMOND, J. W. 631 Ríos, A. 187 ROBERTS, A. 423 ROBIČ, B. 320 RUEDA, L. G. 494

SAMARATUNGA, L. T. 147 SANDERS, P. 561 SHANKLAND, C. 55 SHATNAWI, A. 88 SHEU, J.-P. 101 SHRIVASTAVA, S. K. 645 Sn.c. J. 320 SILTANEVA, J. 653 SKYT, J. 481 **SLIND, K. 37** Son, S. H. 410 SPEIRS, N. A. 645 **STAKHOV, A. 221** STEFANELLI, C. 595 SWAMY, M. N. S. 88 SYMVONIS, A. 423

THIRAN, P. 249
TOFTS, C. 62
TRINDER, P. 436
TSENG, Y.-C. 101
TURNER, S. J. 540

Ungerer, T. 320 Ural, H. 162 Uren, V. S. 511

WALLACE, C. S. 285 WILLETT, P. 631 WILLIAMS, A. 2 WILLIAMS, M. H. 381

Wood, D. R. 423 Wu, J. 349 Wu, S.-L. 101

ZHENG, Y. 293 ZHENGLIN, L. 278

Annual Subject Index: 2002

Adaptive routing fault-tolerant, n-D meshes 349 distributed knowledge architecture 381 asynchronous, poll-and-shuffle, load balancing 561 constant-time minimum spanning tree, verification 174 DC2, periodic task scheduling, evaluation 395 degradable, location management, analysis of 304 encoding and decoding, binary trees 243 hot-potato, packet routing on trees 423 loopless, combinatorial Gray codes, trees 364 minimizing cost of user's mobility, wireless networks new coding, trees 237 new, H, type inference 436 parsing, Earley's algorithm 620 RASCAL, graph matching procedure 631 SMML problems, binomial case 285 shortest-path, time scheduling, cyclic data-flow graphs unbiased generation of binary trees, performance 653 microprocessors, designing asynchronous systems 2, 12, 19 Architecture distributed knowledge, agent-based information retrieval 381 Asynchronous design circuits, synthesizing using Balsa 12 design, microprocessors AMULET 19 Balsa

Balsa
synthesizing asynchronous circuits 12
Bandwidth
fault tolerant HINs, crossbars147
Binary trees
algorithms for unbiased generation of trees 653
Bloom filters
performance, name lookup process 645
Broadcast environments
concurrency control protocol, serializability, miss rates
410
Broadcasting
data, mobile computing, UFO algorithm 129

Chip multiprocessors
comparison with multithreaded processors 320
Collusion attacks
resistance to, KPSs 293
Combining
text categorizers, machine learning 511

Communications resistance to collusion attacks, KPSs 293 Complexity strict minimum message length inference 285 Compression tables, analyses of heuristic 213 Computation formal methods, editorial 1 Concepts similarity, evaluation, SymOntos 583 Concurrency control control protocol, broadcast environments 410 data broadcast new protocol 129 Cryptography secure protocols, keys, Needham-Schroeder 46 verification of, extended temporal logic 453 Data transmission asynchronous, block codes, binary trees 243 Data inconsistency, data-broadcast-to-mobile transactions 129 storage and management, persistent views 481 Database distributed knowledge architecture, information retrieval information retrieval, efficiency 494 managing ageing data 481 operation specification, queries, interfaces 202 de Bruijn indices formulation of pure type systems, isomorphism 187 Debuggers Java, reverse execution 608 Dependability analysis UML statechart models 260 Distributed systems

Distributed systems
name lookup process, Bloom filters 645
reverse engineering, designs of communication
protocols 162
DOCSIS
CATV network, performance 278

Earley parsing, new algorithm for 620 E-commerce concept similarity in SymOntos 583

Fault modelling UML statechart models, dependability, performance analysis 260 Fault tolerance hierarchical interconnection networks, model development 147

minimal routing scheme in n-D meshes 349

Formal semantics

verification, simulation, hardware description language 27

Graph similarity

maximum common subgraph, graph matching, RASCAL 631

Groupware

timing and efficiency, extended temporal logic for CSCW 453

Hardware design

asynchronous circuits, Balsa 12

asynchronous micropipeline, design framework 2

Heuristic

behaviour analysis, compression 213

HOL

development and implementation of, higher-order logic

Hot-potato

packet routing, one-to-one, n-node trees 423

I/O devices

browsing behaviour, QIML 72

Inference

SMML, binomial, trinomial, NP-hardness 285 type, human-like, polymorphic types, Hindley-Milner 436

Information retrieval

agent-based architecture 381

databases, query evaluation plan 494

Information

securing and protecting, novel key escrow approach 661

Internet

quality of service, on-line monitoring 595 security level, resistance to collusion attacks, KPSs 293

Java

debugging programs, reverse execution 608 tool for on-line monitoring, performance 595

Key escrow scheme

novel approach 661

Key predistribution systems

hierarchical KPS, Internet 293

Key sharing

key predistribution systems, evaluation of hierarchical KPS 293 Language

Balsa, synthesizing asynchronous circuits 12 hardware description, Verilog, semantics for formal verification 27

Quality of Information mark-up, man-machine interface, I/O devices 72

Load balancing

algorithm, tree-shaped computations 561

Location management

degradable, service handoff support 304

Logic

temporal, development, CSCW, timing properties 453

LOTOS

full, modal logic, semantics 55

Meshes

n-D, fault-tolerant and minimal routing scheme 349

Micropipeline

asynchronous design, Rainbow 2

Microprocessors

design and validation, AMULET 19

Minimal routing

n-D meshes with fault regions 349

Minimum message length

inference, complexity 285

Mobile computing

multichannel MAC protocol, network performance 101 new UFO protocol, comparison with multiversion broadcast 129

tracking algorithm, cost function, mobiles users 525

Modal logic

HML-like, Full LOTOS, FULL 55

Multithreading

various approaches and techniques, microprocessors 320

Needham-Schroeder

public-key protocol, analysis of 46

Networks

DOCSIS CATV, performance analysis 278

hierarchical interconnection, simulation models, cluster-

based systems 147

mobile ad hoc network (MANET), MAC design

problem, new protocol 101

personal communication (PCS), location management 304

wireless, overloading, mobility management algorithm 525

Number systems

ternary, Bergman's, Brousentsov's principle, mirrorsymmetrical arithmetic 221

Object-oriented programming

multi-computer systems, POEMS 540

SUBJECT INDEX

Ontology

management systems, concept similarity 583

Packet routing

hot-potato, one-to-one patterns, trees 423

Parallel systems

object-oriented programming, POEMS 540

Parallelism

multithreaded processors, chip multiprocessors 320

Parsing

new form of Earley algorithm 620

Performance analysis

categorization systems, probabilistic framework 511

DOCSIS CATV network, CBR traffic 278

evaluation of location management algorithm 304 modelling, probabilistic feedback approach 62

system, programming, parallel object-oriented systems
540

Petri nets

software architecture, analysis using SAM 111

Pipeline

addition, matrix and ternary mirror-symmetrical adder 221

Polymorphic types

human inference, H inference algorithm 436

Polymorphism

parameterized, explaining polymorphic types 436

Processors

comparison of multithreaded and chip, processor design 320

processor array with reconfigurable bus systems 174

Protocols

concurrency control protocol, BCC-TI, transaction processing 410

communication, multichannel MAC, mobile ad hoc networks 101

communication, reverse engineering 162

Pure type systems

formulation of using de Bruijn indices, isomorphism 187

Queries

contexts, operation specification for component databases 202

optimization, efficiency, histogram-based estimation, prototype 494

Rainbow

novel framework, asynchronous micropipeline design 2

Random polling

analysis of, dynamic load-balancing 561

RASCAL

new graph matching procedure 631

Real-time systems

SPIRIT, scheduling algorithm, periodic and aperiodic tasks 395

Reverse engineering

deadlock-free designs of communication protocols 162

louting

packet, hot-potato routing, trees 423

Scheduling

periodic and aperiodic tasks, DC² scheduler 395 static, shortest path, cyclic data-flow graph, I/O delay

Security

cryptographic protocols, analysis of

Needham-Schroeder 46

novel key escrow approach

secret voting scheme, computerized general elections 672

Signal processors

multiplication, development of matrix and ternary mirror-symmetrical adder 221

Similarity

concept, evaluation 583

Simulation

semantics for formal verification, Verilog 27

Software architecture

framework, development, analysis, SAM 111

Statechart models

UML, dependability analysis 260

Symbolic transition systems

formal definition, HML-like modal logic 55

Temporal logic

development, CSCW, timing properties 453 software architecture, analysis using SAM 111

Text categorizers

performance of combined systems 511

Traffic modelling

probabilistic feedback abstraction 62

Transaction processing

concurrency control protocol, BCC-TI, miss rate, response time 410

Trees

binary trees, block codes for asynchronous data

transmission 243 binary, k-ary, specified degrees, loopless algorithm 364

D-ary, binary, new coding algorithm 237

minimum spanning tree, constant-time algorithms 174 n-node, hot-potato packet routing 423

traversal, load-balancing algorithms 561

HMI.

statechart diagrams, systems dependability and performance analysis 260

SUBJECT INDEX

Validation processes

processor design and validation, AMULET 19

Verification

formal semantics, Verilog, simple simulation 27 uptake of, HOL development 37

Voting

via the Web, general elections 672

Warehousing

ageing data, persistent views 481

World Wide Web

mark-up languages, browsing behaviour of I/O devices

72

networked elections, disclosure of privacy 672 on-line monitoring tools, performance 595